INTERNATIONAL TRADE ADMINISTRATION

Coal News and Trends

Upcoming Webinars:

- **March's Web-Based Seminar:**
  March 13, 1:00 pm Eastern Time
  "Opportunities for U.S. Companies in the Peruvian Coal and Mining Sector"
  Led by Cesar Jochamowitz, CS Trade Specialist in Lima, U.S. Embassy - Peru

  The mining sector is a major contributor to Peru's sustained economic growth. In 2005, the mining industry represented 13.5% of Peru's GDP and comprised nearly 54% of total exports, or approximately US$ 8.9 billion. Technological advancements have increased mining prospects in Peru and have drawn major international companies to the region. There is a great opportunity for U.S. suppliers to provide equipment and services for new mining projects in Peru. For those U.S. companies that would like to gain insight on these opportunities in Peru and participate in this webinar, please register at: http://www.buyusa.gov/pittsburgh/peru.html.
  For inquires on this webinar, please contact Shannon Fraser at (202) 482-3609 or Shannon.Fraser@mail.doc.gov

- **Upcoming Web-Based Seminars in April:**
  The four web-based seminars scheduled during April will provide U.S. companies with an overview of the coal and mining sectors in each respective country, highlighting the commercial opportunities available to U.S. companies. Each web-based seminar will be led by the Commercial Service Energy and Trade Specialist in the designated country. For additional information on these web-based seminars, please contact Shannon Fraser at (202) 482-3609 or Shannon.Fraser@mail.doc.gov.

  - April 2: "Opportunities for U.S. Companies in Chile's Coal and Mining Sector"
  - April 8: "Opportunities for U.S. Companies in Brazil's Coal and Mining Sector"
  - April 10: "Opportunities for U.S. Companies in Columbia's Coal and Mining Sector"
  - April 22: "Opportunities for U.S Companies in Australia's Coal and Mining Sector"

Upcoming Events:

- **International Conference on Clean Technologies for the World Mining Industry, April 13-16, Santiago, Chile**
  The Eighth Annual International Conference on Clean Technologies for the World Mining Industry will take place from April 13-16, 2008 in Santiago. Chilean professionals and foreign delegations from the mining and metallurgical sectors have attended this event in previous years. The 2008 event will highlight new technological processes to reduce mining contaminants worldwide. Participants from the mining sector, universities and research centers are encouraged to attend the event. Additional information can be found at http://www.ctwmi.com/.

- **Coal Prep 2008, April 28-May 1, Lexington, KY**
  The annual Coal Prep event attracts over 200 exhibiting companies and more than 1,200 attendees. Attendees come to see the latest coal preparation products and technologies and to gain up-to-date industry information. Attendees include plant managers, superintendents, engineers, maintenance professionals, quality control professionals and coal industry experts. Topics to be highlighted at the 2008 event include Loading and Transportation of Coal and Operator Guidelines for Coal Preparation. Please refer to http://coalaggprepshow.com/CoalPrep2008/Public/MainHall.aspx?ID=1676 for additional information on the event, or contact Sara Moreno at (859) 225-7001 or Sara.Moreno@mail.doc.gov regarding the International Trade Administration program at the Coal Prep event.

- **Electric Power, May 6-8, Baltimore, MD and ITA Exporting Seminar, May 5**
  The Tenth Annual Electric Power event, to be held from May 6-8 in Baltimore, will highlight power generation trends, with sessions on fuel strategies, fleet optimization, coal-fired power plants, nuclear power, renewable power, and environmental issues. As part of the Electric Power event, the International Trade Administration will provide a seminar on 'Exporting U.S. Power Technologies and Equipment' on May 5 from 2:00-5:30pm. For additional information on the Electric Power event, please refer to http://www.electricpowerexpo.com/index.asp, or contact Shannon Fraser at (202) 482-3609 or Shannon.Fraser@mail.doc.gov for information on the exporting seminar.

Trade Leads:

Coal Extraction Project in Georgia:

Georgian Industrial Group is the owner and operator of Tkibuli coal mine in the western region of Georgia. According to available data, there are approximately 331 million tons of bituminous coal reserves in the eastern part of the Tkibuli Shaori coalfield. The mine is open with perpendicular shafts 300-400 meters deep. Mine haulage is by rail and belt. In 2008, coal extraction in the Tkibuli coal mine is expected to reach 350,000 tons.

The Georgian Industrial Group plans to conduct a technical study to:

- Provide recommendations on the optimization of coal mining in the Tkibuli coal mine, including mine equipment and internal organization;
- Create a full technical and organization program to upgrade the mine and increase its efficiency;
- Equip the mine with new technology, including 1) jumbo drilling machines, 2) side discharge loaders, 3) hydraulic props, 4) steel bars, and 5) steel arches to increase capacity output to 2 million tons per year; and
- Provide training to mine crews on advanced mining technologies.

Interested U.S. companies should contact George Chikovani at G_Chikovani@giec.ge. Additional information is also available from the U.S. Business Information Service for the Newly Independent States (BISNIS) representative in Georgia, Kartlos Gviniashvili, at gviniashvilik2@state.gov.

Policy Analysis:

United States, China Announce Joint Coal Mine Methane Project

Effort Targets CO2 Emissions Through Clean Power Development
http://fossil.energy.gov/news/techlines/2008/08006-U.S._Announces_APP_Project.html
February 21, 2008

Washington, D.C. - The Department of Energy's Office of Fossil Energy recently announced a joint venture between U.S. and Chinese companies to extract coal mine methane at the Hebi coal mines in the Henan Province in China. It is part of the ongoing Asia-Pacific Partnership and is being coordinated by Tulane University's U.S.-China Energy and Environmental Technology Center (EETC).

Central China Sakel Technology, Inc. is the managing partner of the consortium that was formed to develop combined U.S.-China projects. Other participants include CMM Energy, LLC (Lake Oswego, Oregon) and Milestone Consulting, LLC (Frederick, Maryland). The $2.8 million investment follows a feasibility study that will define project parameters. The project will begin in mid- to late-2008.

Initial plans call for the installation of twenty-two (22) 500kW generators to use the coal mine methane drained from the Hebi mines and the creation of a ventilation air methane oxidation facility at one of the mines. In the United States alone, the greenhouse gas methane in ventilation air constitutes approximately five percent of all U.S. methane emissions and is the equivalent to about 32 million tons of carbon dioxide (CO2) per year. Coal mine methane has more than 20 times the warming potential of CO2.

To receive Certified Emission Reduction (CER) credits, the equipment must be verified and approved by the United Nations. When work is completed, China Sakel will be creating approximately 250,000 CER credits as required by the Clean Development Mechanism of the Kyoto Protocol. One CER is equivalent to the reduction of one ton per year in CO2 emissions.

The EETC, funded by the Office of Fossil Energy and established in 1997, is a facilitator for the transfer of clean energy technology between the two countries and is presently working to fund a sister center at Tsinghua University in Beijing. The EETC is instrumental in introducing new technology to the Chinese market. Six countries, Australia, China, India, Japan, Korea and the United States, comprise the APP partner countries. They account for almost half of the world's population, supply 48 percent of the world's energy, and emit 51.5 percent of the world's CO2 emissions.

Carbon Sequestration Partner Initiates CO2 Injection into Michigan Basin

Test Part of DOE's National Strategy to Mitigate Greenhouse Gas Emissions
http://fossil.energy.gov/news/techlines/2008/08005-CO2_Injection_Begins_in_Michigan.html
February 18, 2008

Washington, DC - Tapping into a saline formation some 3,200 to 3,500 feet below the earth's surface, a U.S. Department of Energy (DOE) team of regional partners has initiated the injection of up to 10,000 metric tons of carbon dioxide (CO2) to assess the formation's ability to store the greenhouse gas safely and permanently.

DOE's Midwest Regional Carbon Sequestration Partnership (MRCSP) began the 2 month-long field test in the Michigan Basin under the auspices of DOE's Regional Carbon Sequestration Partnership program. DOE launched the partnership program in 2003 to develop and validate technologies that store and monitor CO2 in geologic formations as part of a national strategy to combat global climate change.

"This sequestration field test by our Midwest partnership is one of many nationwide tests DOE is supporting to demonstrate the feasibility of permanently storing greenhouse gases," said Jim Slutz, Acting Principal Deputy Assistant Secretary for Fossil Energy. "The success of these tests moves the nation's carbon sequestration program another step closer to determining the processes best suited to address the overall issue of global climate change."

The Michigan Basin test is one of three MRCSP geologic field tests and one of more than 20 such projects currently underway nationwide. It is the first project to begin injection during the validation phase of the partnerships program, which is managed by the Office of Fossil Energy's National Energy Technology Laboratory.

In December 2007, Core Energy LLC was issued an Underground Injection Control permit by the U.S. Environmental Protection Agency for the injection well being used in the test. Obtaining the permit, the first in the region for CO2 sequestration, is significant because it allows the MRCSP to inject CO2 into saline formations deep underground at the field test location near Gaylord, Mich.

At approximately 3,500 feet deep, the injection well is thousands of feet below drinking water levels, which are at a depth of less than 1,000 feet in this region. The dense carbonates and evaporites of the Amherstburg and Lucas formations provide 900 feet of containment above the injection zone, thereby ensuring the safety of drinking water supplies.

This CO2 sequestration field test draws on several natural advantages. Located at the northern rim of the Michigan Basin, the site has a number of potentially suitable geologic formations for the storage of CO2. These formations appear to be well-contained with extensive, low-permeability caprock to seal the injected CO2 in place. The planned test will assess the continuity and injectivity of the target saline formation, as well as the integrity of the caprock, operational approaches, and monitoring mechanisms.

In addition, the site's location in the midst of the Antrim gas fields enables the project to take advantage of the existing infrastructure of gas processing and an 8-mile-long CO2 transport pipeline already in place for enhanced oil recovery. Much of the underlying geology is well documented.

During the field test, innovative monitoring, measurement and verification methods will be developed and implemented to determine the fate of the injected CO2. Following injection, a data analysis and review will be performed. After the field test has been completed, the injection well will be closed in accordance with the permit. Post-closure monitoring, measurement, and verification will also be conducted to confirm the permanence of the CO2 storage.

The MRCSP, one of seven DOE-sponsored regional partnerships, is led by Battelle, a global leader in technology development and commercialization headquartered in Columbus, Ohio. The MRCSP includes more than 30 partners drawn from state and federal organizations, leading universities, state geological surveys, non-governmental organizations, and private companies in the eight-state region of Indiana, Kentucky, Maryland, Michigan, New York, Ohio, Pennsylvania, and West Virginia.

In addition to Battelle and Core Energy, key partners and technical contributors involved in the Michigan Basin test include DTE Energy, the Michigan Geological Repository for Research and Education at Western Michigan University, Stanford University Geophysics Department, Schlumberger, and the Michigan Department of Environmental Quality's Office of Geological Survey.

The expertise provided by these partners was valuable in confirming the suitability of the site for injection, drafting the permit application, and providing public outreach. Core Energy is the site owner and operator, while DTE Energy owns the Turtle Lake gas processing plant that supplies the CO2. Western Michigan University is providing assistance in the detailed geologic assessment as well as in the preparation of educational public outreach demonstrations and materials. The Michigan Department of Environmental Quality, Office of Geological Survey, issued the permit to drill the test well.

Alongside the goal of testing the feasibility of carbon sequestration in a real-world setting, the MRCSP program includes a significant focus on outreach. The region-wide MRCSP website is complemented by an active local outreach effort. MRCSP members with a state and local presence in the community, such as Core Energy and DTE Energy, have made personal contacts with residents, state and local officials, and the media to ensure awareness of the project and address questions and issues at an early stage. In addition, in advance of the draft permit comment period, the MRCSP organized and publicized an informational meeting at a neighborhood school that was open to all interested individuals, groups, and agencies.